

Cited by App.

PAT-NO: DE019618213A1

DOCUMENT-IDENTIFIER: DE 19618213 A1

TITLE: Fuel gas production from e.g. organic waste matter
in two stage process

PUBN-DATE: November 13, 1997

INVENTOR-INFORMATION:

NAME	COUNTRY
HEIDRICH, RUEDIGER DR	DE
THIELEN, WALTER DR ING	DE

ASSIGNEE-INFORMATION:

NAME	COUNTRY
PETERSEN HUGO VERFAHRENSTECH	DE

APPL-NO: DE19618213

APPL-DATE: May 7, 1996


PRIORITY-DATA: DE19618213A (May 7, 1996)

INT-CL (IPC): C10J003/58;C10J003/62

EUR-CL (EPC): C10J003/66 ; C10B053/02

ABSTRACT:

CHG DATE=19990617 STATUS=O>The new process produces fuel gas from organic materials, especially wood and other biomass. These are pyrolysed, producing low temperature carbonisation gas It contains hydrocarbons, tar and water vapour removed with thermal decomposition. The residue is a char containing inorganic matter. The resultant gas is burned rich, at temperatures of 1200 deg C and above. Resultant hot gas is used to gasify the char, producing dust-laden synthesis gas, which is then cleaned. Novel features include



removal of the low temperature carbonisation gas with
minimal dust loading.
Its subsequent combustion is only partial, under conditions
of imposed
vorticity. Also claimed is a plant to carry out the
process described.

same

DERWENT-ACC-NO: 1997-551201
DERWENT-WEEK: 199751
COPYRIGHT 1999 DERWENT INFORMATION LTD

TITLE: Fuel gas production from e.g. organic waste matter
in two stage process
- commences with low temperature carbonisation to char and
tar-laden gas with
minimal dust, which is partially combusted with air and
steam to form high
grade fuel gas

INVENTOR: HEIDRICH, R; THIELEN, W

PATENT-ASSIGNEE: PETERSEN GES VERFAHRENSTENSTECH
HUGO[PETEN]

PRIORITY-DATA: 1996DE-1018213 (May 7, 1996)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE
PAGES	MAIN-IPC	
DE 19618213 A1	November 13, 1997	N/A
009	C10J 003/58	

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO
APPL-DATE		
DE19618213A1	N/A	1996DE-1018213
May 7, 1996		

INT-CL (IPC): C10J003/58; C10J003/62

ABSTRACTED-PUB-NO: DE19618213A

BASIC-ABSTRACT: The new process produces fuel gas from
organic materials,
especially wood and other biomass. These are pyrolysed,
producing low
temperature carbonisation gas It contains hydrocarbons, tar
and water vapour
removed with thermal decomposition. The residue is a char
containing inorganic
matter. The resultant gas is burned rich, at temperatures
of 1200 deg. C and
above. Resultant hot gas is used to gasify the char,

producing dust-laden
synthesis gas, which is then cleaned. Novel features
include removal of the
low temperature carbonisation gas with minimal dust
loading. Its subsequent
combustion is only partial, under conditions of imposed
vorticity. Also
claimed is a plant to carry out the process described.

USE - To produce gas from organic materials e.g. wastes and
biomass.

ADVANTAGE - A high grade fuel or synthesis gas is produced
in this process.
Minimal dust is removed from the pyrolysis stage, reducing
the quantity of
slagging matter reaching the rich combustion stage,
avoiding operational
difficulties. Maximum temperatures of 1500 deg. C are
reached. Steam
injection introduces the water gas shift reaction, and
controls the
temperatures below excessive levels, whilst enhancing the
hydrogen and carbon
monoxide content.

CHOSEN-DRAWING: Dwg.2/4

TITLE-TERMS:

FUEL GAS PRODUCE ORGANIC WASTE MATTER TWO STAGE PROCESS
COMMENCE LOW
TEMPERATURE CARBONISE CHAR TAR LADEN GAS MINIMUM DUST
COMBUST AIR STEAM FORM
HIGH GRADE FUEL GAS

DERWENT-CLASS: E36 H09

CPI-CODES: E31-A01; H06-A; H09-F03;

CHEMICAL-CODES:

Chemical Indexing M3 *01*

Fragmentation Code

C106 C108 C550 C730 C800 C801 C802 C803 C805 C807

M411 M424 M720 M740 M903 M904 M910 N515 Q413

Specfic Compounds

01423P

Registry Numbers

1423P

10/09/066

L Number	Hits	Search Text	DB	Time stamp
1	1	de-19618213-\$.did.	DERWENT	2002/09/21 12:11
2	2	de-19618213-\$.did.	EPO; DERWENT	2002/09/21 13:08
3	15577	solar same energy	USPAT; US-PGPUB	2002/09/21 13:08
4	41505	charcoal	USPAT; US-PGPUB	2002/09/21 13:09
5	6784	biomass	USPAT; US-PGPUB	2002/09/21 13:09
6	2353	photosynthes\$5	USPAT; US-PGPUB	2002/09/21 13:10
7	493	charcoal and biomass	USPAT; US-PGPUB	2002/09/21 13:10
9	4	(photosynthes\$5 and (charcoal and biomass)) and (solar same energy)	USPAT; US-PGPUB	2002/09/21 13:10
8	144	photosynthes\$5 and (charcoal and biomass)	USPAT; US-PGPUB	2002/09/21 13:20
10	164	(solar same energy) and charcoal	USPAT; US-PGPUB	2002/09/21 13:21
11	14	((solar same energy) and charcoal) and biomass	USPAT; US-PGPUB	2002/09/21 13:21